JPRS 75126 13 February 1980

# China Report

**AGRICULTURE** 

No. 70



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# CHINA REPORT

# AGRICULTURE

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### I. GENERAL INFORMATION

FUNDS FOR AGRICULTURAL MODERNIZATION, EXCESS LABOR DISCUSSED

Beijing BEIJING RIBAO in Chinese 3 Dec 79 p 2

[Article by Zhang Zhongwei [1728 0112 1218], Cai Wenyuan [5591 2499 6678], Li Zhimin [2621 1807 3046] and Zhang Hongai [1728 3163 1947], Beijing Agricultural University, Department of Agricultural Economy: "The Problems of Capital for Agricultural Modernization and Outlet of Excess Labor; Investigation of Selected Points in the Tong County Agricultural District"]

[Text] Two problems face Tong County in agricultural techanization: one is a need of a capital investment of more than 100 million yuan; the other is a surplus labor force of 80,000 men released from raising crops. Where does the capital come from? And where shall this labor force be sent? The "incoming" and "outgoing" for Tong County, and perhaps for the whole country, became the two most urgent problems in the process of agricultural mechanization.

The opinions can be summarized in two groups: One stresses the primary importance of state support, supplemented with self-reliance. The capital will come mainly from the state which offers aid through various channels (e.g. non-compensating, no-interest or low-interest loans). The labor force is to be absorbed primarily through measures supported by the state (e.g. sent to factories or to the cities and employment in industries and mines). The other puts primary importance on self-reliance, supplemented by state support. The capital will be mainly accumlated from compune and brigade-run [enterprises]; the labor force will be primarily used to deepen and broaden the advance of agricultural production.

Tong County is endowed with a level terrain, rich soil, suitable climate, abundant water resources and easy communications network. Its industry is in a better position to support agriculture. The base for goods and materials and technology is solid, the level of production and management rather high. In sum, Tong County possesses favorable conditions and high potential. The problems concerning the source of capital, and the outlet for the labor force, we believe, should be solved by putting primary importance on self-reliance, supplemented with state support in carrying out agricultural mechanization. How can this be done? We believe three

"resolutions" and three steps are needed. The three "resolutions" are the resolution to carry out the policy of production autonomy by the basic accounting unit, the resolution to implement the guiding principle that agriculture is the foundation, and the resolution to reverse the tendency that for a long time concentrate on grain and establish a production structure integrating the development of agriculture, forestry, animal husbandry, industry, sideline production and fisheries. The first two "resolutions" are the premises of the last "resolution" and the last "resolution is the embodiment of the first two resolutions." To carry out the last "resolution," the following three steps should be adopted:

The first step is labor accumulation. Essentially the capital is accumulated by engaging the labor in active work. Starting with the actual situation of Tong County, first dig fish ponds, build livestock pens, construct workshops, cultivate nursery gardens, collect high-quality organic fertilizers and build high and steady yielding fields which guarantee harvests despite drought or water logging, fully utilize the productive potential in agriculture, comprehensively develop the production of agriculture, forestry, animal husbandry, industry, sideline production and fisheries, and create versatile agricultural sideline products in abundance in order to accumulate capital for modernization.

The major form of organization in the labor accumulation stage should be the year-round speciality team (group) for agriculture, forestry, animal husbandry, industry, sideline production, fisheries, fertilizer-collection, and farmland capital construction. This indicates the regularization and specialization of such things as labor, land, implements, and tasks under the unified leadership of the basic accounting unit.

- (1) Forestry speciality team (unit). There are more than 1,000 production teams in Tong County. If each production team forms a special work team of five to seven people to nurse young plants and to plant forests, not only can capital be accumulated but use can also be made of the excess labor force; not only can agricultural fields be protected, but also can the problems of insufficient fuel, material and animal fodder be solved. Most important of all, it will enable Tong County—a satellite city to the nation's capital—to become a beautiful oasis rich in grain, animals and lush green shade.
- (2) Fertilizer speciality team. According to a survey, in Tong County the improper use and overuse of chemical fertilizers and inadequate attention to soil conservation over a long period of time have caused soil encrustation and decline in fertility. The cost of production rises with additional quantities of chemical fertilizers and agricultural chemicals used in the field. To maintain large-scale increases in production, it is necessary to provide the soil with organic and other adequate nutrients. The production team, drawing one unit of manpower for every hundred mu of cultivated land, can establish a year-round fertilizer speciality team (unit) to open up fertilizer sources and to make high-quality organic

fertilizers. The issue not only concerns technical measures, but also becomes part of the important problem of accumulating capital and making use of an excess labor force in the process of agricultural modernization.

- (3) Animal husbandry speciality team. An animal husbandry speciality team (unit) of 10 to 15 people formed in each production team can vigorously develop domestic animals such as cattle or sheep which can be used concurrently as meat and dairy animals and moreover consume little or no grain and develop domestic rabbits and poultry in order to provide meat, eggs. milk for the people in the nation's capital and to supply high-quality organic fertilizer for agriculture. It also serves the multi-purpose of absorbing the excess rural labor force and raising the necessary capital collectively for modernization.
- (4) Industry and sideline production speciality team. Industry and sideline production afford many possibilities, require small capital and bring quick returns, are profitable and can absorb large numbers from the labor face. Tong County is very rich in natural resources, agricultural resources and labor. Located in the capital's vicinity, industry supports agriculture and the sale of industrial and sideline products and services is convenient. For example, in the Sungezhuang Brigade of the Hugezhuang Commune, "embroidery" is a sideline product of the home. In 1978, 80 people brought in an income of 31,600 yuan for the brigade. Tong County should adopt varied and flexible methods such as mutually combining industrial and sideline production with agricultural production (agriculture, forestry, animal husbandry, sideline production and fisheries), mutually integrating large sideline production with small sideline production and mutually combining home sideline production with collective sideline production in order to develop industry and sideline production,
- (5) Fishery speciality team. There are more than 5,000 mu of water surface for raising fish throughout the county. The annual fish production amounts to more than 570,000 jin. Even though the situation varies in each brigade, there is great potential for exploiting and developing areas for raising fish and increasing productivity per mu.
- (6) Other speciality teams. [Editor's note: No elaboration given]

The second step is capital accumulation. The capital accumulated from labor is used to buy machines, equipment, raw material, fertilizer and materials, in order to expand production and to accumulate more capital so that production in agriculture, forestry, animal husbandry, industry, sideline production and fisheries will progress from low level to high level, from native to "modern" and from manual to a modernized operation. That is to move the present agricultural production step by step toward regional, specialized and plant-like operations. The Zhangxinzhuang Brigade of the Zhangjiawan Commune has adopted the method of labor accumulation since 1973. Some 80 laborers were transferred to work in a jade-polishing plant (producing exporting items) which had been set up, on

the basis of local conditions, to process brought-in material. The brigade's increased income was used to further expand production by purchasing machines, drilling mechanized wells, and buying chemical fertilizers. Later the brigade was able to add more than 10 diverse items in their operation including a bean-curd factory, wooden furniture shop, repair shep, deer raising and an electromagnetic plant. According to the statistics of 1978, the total income from industry and sideline production amounted to more than 306,300 yean which is 44.5 percent of the brigade's total income. The electromagnetic plant alone, with an investment of 600,000 yuan, can make use a labor force of 400. Because of the development of fedustry and sideline production, agricultural mechanization makes great advances, while capital is accumulated and the excess labor force finds an outlet locally. At present, Zhangxinzhuang has a higher level of agricultural mechanization (plowing, harrowing, threshing, transporting, draining and irrigating are all mechanized; sowing, harvesting, cultivation and fertilizing are more than 30 percent). But now there is a shortage of labor. People are considering marrying "sons-in-law" into the family to make up the needed labor force. The example shows that with the correct handling of the relationship ween agriculture and industry and sideline production, arrangem to the links between production, supply and sale, it is entirely ; sible to solve the two pro-

The third step is scientific management. The more agricultural production and scientific technology become modernized, the more detailed the division of labor in the society becomes; their inter-relationship thus becomes closer and more comprehensive. The means of production (machinery and equipment) also become more precise and more expensive. This demands implementation of corresponding scientific management. We must thoroughly eradicate such unscientific and unsystematic phenomena as blind command, formalism, no fixed quota, no planning, a system that fosters irresponsibility, no accounty and doesn't concern itself with economic results all of which are detrimental to the state, to the collectives and to individual commune members. Scientific management can bring down the cost of production rapidly. If the cost for producing one jin of grain can be lowered by one cent, for the 500 million jin produced by the county, about 5 million yuan will be saved. Therefore, the function of scientific management cannot be underestimated.

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### SCIENTIFIC RESEARCH IN AGRICULTURAL ENGINEERING STRESSED

Beijing GUANGMING RIBAO in Chinese 20 Dec 79 p 2

[Article by Du Yali [2629 0068 0448]: "Rapidly Develop Scientific Research of Agricultural Engineering: Chinese Agricultural Engineering Society Held Its First Meeting and Scholarly Conference"]

[Text] Recently, at the inaugural meeting and scientific schelarly conference held in Hangzhou by the Agricultural Engineering Academic and Scientific Group Nogye Gongchengxue Xuckezu [6593 2814 1526 4453 1331 1331 4430 4809] of the State Scientific and Technological Commission and Chinese Agricultural Engineering Society, the delegates held that in order to change the backward state of China's agriculture and to quicken the pace of agricultural modernization, it was necessary to develop rapidly scientific research of agricultural engineering which should rank among the pressing priorities in upgrading the present level of agricultural production and in carrying cut the Four Modernizations.

Agricultural engineering is a science bordering on modern agricultural biology and modern engineering. When constructing an irrigation project or building a modern grainery or a mechanized chicken farm, comprehensive planning is needed to take into consideration biological measures, engineering measures and specialized engineering in related fields, in order to select the best-suited design, to apply the best scientific management and to get the maximal economic benefit. Agricultural engineering is the technical science that can handle this type of comprehensive coordination.

In the meeting, the delegates felt that our research on agricultural engineering had remained basically in the applied field while research in the theory of agricultural engineering had not attracted much attention. Therefore, in the past, often the researchers of agricultural engineering techniques were separated from agricultural science and the researchers of agricultural science were separated from the techniques of agricultural engineering. This was one of the basic reasons that many of our agricultural engineering measures could not be fully brought into play. The delegates proposed, in accordance with our nation's actual situation,

that the emphasis of our country's present development of scientific research of agricultural engineering should include the engineering of land development and utilization, engineering of agricultural biological environment, engineering of agricultural energy sources, engineering of agricultural mechanics, engineering of agricultural systems and agricultural human engineering. In order to ensure the smooth progress of scientific research work, the delegates further proposed that the Agricultural Engineeeing Academic and Scientific Group of the State Scientific and Technological Commission should strengthen its organization and leadership and each department should mutually support each other; that departments or special programs be experimentally run in selective agricultural institutes and schools to train rapidly a large group of agricultural engineers; and that the state should create the necessary conditions for research of agricultural engineering and ensure normal progress of research and study.

There were more than 200 participates to the meeting including delegates who are engaging in the technical work of agricultural engineering from all over the country and members of the Agricultural Engineering Academic and Scientific Group of the State Scientific and Technological Commission, and responsibile personnel of concerned departments. Some 40 scientific papers and research reports were delivered in the conference.

9507

FORESTRY MINISTRY COMMITTEE—To strengthen the leadership in forestry sciences, coordinate the scientific and technological personnel of various departments and speed up modernization in forestry, the Ministry of Forestry recently formally set up a science and technology committee. The committee is composed of 53 persons, including leading professional cadres of some departments and bureaus of the ministry, and experts, professors and senior engineers of the Chinese Academy of Forestry Sciences and the Beijing Forestry Institute. The committee will be responsible for mapping out the forestry economic policies and research projects, establishing research organs, commending and popularizing major accomplishments, importing foreign technology and examining regulations concerning the training and wages of the senior scientific and technological personnel. [Text] [Beijing Domestic Service in Mandarin 0400 GMT 24 Jan 80 OW]

ANHUI

## BRIEFS

ANHUI IRRIGATION PROJECT--Beijing, 19 Jan--Peasants in Wuhu Prefecture, Anhui Province, are speeding up the construction of a 2,100-metre tunnel and and aqueduct which is 575 metres long. These are part of the east trunk canal project in the Chencun irrigation area. When completed, the canal will irrigate more than 60,000 hectares of farmland in Jingxian, Xuancheng and Wuhu counties. [OW200142 Beijing XINHUA in English 1518 GMT 19 Jan 80 OW]

ANHUI COTTON PLANTING--Anqing Prefecture, Anhui, planted 470,000 mu of cotton in 1979. Per mu yield is expected to reach 105 jin, and total yield is expected to reach approximately 490,000 dan. Both per unit and total yield will be 20 percent higher than in 1978. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 23 Jan 80 OW]

VEGETABLE STORAGE—Beijing, 26 Jan—Beijing has completed ten new refrigerated, ventilated storage facilities for vegetables. They can store 25,000 tons at the same time on 103,000 square metres of floor space. These cold stores, designed and built by Beijing's commercial departments, can keep vegetables fresh for as long as six months. [Text] [Beijing XINHUA in English 0732 GMT 26 Jan 80 OW]

MIXED FEED PLANT--Beijing, 17 Jan--A large new mixed feed plant, built in the suburbs of Beijing, has now gone into trial production. When operating to capacity, the Nanyuan mixed feed plant will produce 10 tons of compound animal feed per hour. The plant covers an area of 18,500 square meters. It has bone meal, fish meal, compound and additive workshops, and is run on the production line principle. It is built for the purpose of raising more pigs and poultry in the suburbs. [Text] [OW171445 Beijing XINHUA in English O146 GMT 17 Jan 80 OW]

BEIJING GRAIN PROCUREMENT—By 20 December, the city's grain procurement reached 454,210,000 jin, overfulfilling the state's grain procurement task half a month in advance compared with 1978. This year, grain production in the suburbs was reduced by about 200 million jin compared with 1978. The cadres and masses in the rural areas have regarded selling excess grain as practical action to support the four modernizations and speed up agricultural development. This year, it was stressed that the quota for procurement is to remain unchanged for several years, the quota for excess procurement is to be fixed every year, and excessive amounts will not be procured. Therefore, the people in the rural areas have peace of mind and nothing to worry about. [HK171307 Beijing City Service in Mandarin 2300 GMT 27 Dec 79 HK]

FUJIAN TEA CONFERENCE—The Fujian People's Government recently held a conference on tea, to speed up the production of tea so as to meet the needs of export and promote development in the mountain areas. In 1979, 1.5 million mu of farmland were sown to tea throughout Fujian, and the total output and purchase of tea reached the highest level recorded since the founding of the country. The communes and brigades in the mountain areas earned 60 million yuan from tea alone, paying 40 million yuan of tax to the state and earning 20 million U.S. dollars in foreign exchange. However, tea production in Fujian is still far from meeting the demands of export and foreign trade and domestic needs. The participants to the conference urged that the leadership at all levels effectively grasp tea production while grasping grain production, increase the yields of tea and improve the quality. They also formulated plans for the production, purchase and export of tea from 1980 to 1985. [HK270843 Fuzhou Fujian Provincial Service in Mandarin 1035 GMT 18 Jan 80 HK]

FUJIAN RURAL ENTERPRISES INCOME--In 1979, the total income from the commune and brigade enterprises in Fujian increased by 31 percent over 1978, equivalent to 2.5 times that of 1976. At present, 900 communes throughout Fujian have basically set up enterprises, while 80 percent of the brigades have also set up enterprises. The communes and brigades have set up a total of 36,000 enterprises. The commune members who are working in these enterprises account for 12 percent of the total agricultural labor forces throughout the province. In 1979, 70 million yuan were spent from the profits of the commune and brigade enterprises throughout Fujian for supporting agriculture. [HK171504 Fuzhou Fujian Provincial Service in Mandarin 2300 GMT 2 Jan 80 HK]

FUJIAN SUGARCANE--The people in the sugarcane areas of Fujian reaped a bumper harvest of sugarcane from 620,000 mm last year after overcoming serious drought. The average per mu yield exceeded 10,000 jin for the first time. In the 1979-80 refining season, the total output of cane sugar is expected to reach 350,000 tons, an increase of 200 percent over 1975. In the past 1 year, the areas sown sugarcane were increased by 240,000 mm throughout the province. The total output of cane sugar has increased at an average of 50 percent every year. [HK200921 Fuzhou Fujian Provincial Service in Mandarin 1035 GMT 14 Jan 80 HK]

FUJIAN PIGS--The output of pigs in Fujian in 1979 was better than any previous years. By the end of the year, there were 6.85 million pigs in the province, an increase of 430,000 over the end of 1978, which is the previous highest level. In Longxi and Jinjiang prefectures, there were 1 million pigs by the end of the year. In 1979, 3.13 million pigs were sold, with Putian Prefecture accounting for 530,000. According to the latest statistics, the average weight of each pig was 168.2 jin, an increase of 6.7 jin over 1978. [HK200921 Fuzhou Fujian Provincial Service in Mandarin 1035 GMT 15 Jan 80 HK]

CHANGING CULTIVATION TECHNIQUES, PRODUCING GREEN MANURE URGED

Guangzhou GUANGDONG NONGYE KEXUE [GUANGDONG AGRICULTURAL SCIENCES] in Chinese No 5, 20 Sep 79 pp 3-4

[Article by Xinghua Fertilizer Station of Fengkai County Agriculture Bureau]

[Text] Xinghua Commune is a hilly district where the soil is infertile and the land suffers from serious errosion and lack of water and fertilizer. The absolute majority of the 21,000 mu of rice field of the entire commune has been seriously threatened by the landslide, mud and sand. Historically, the yield of rice and grains is very low. The annual per mu yield of unhusked rice in 1962 was only 586 jin.

In the winter of 1963, the fertilizer station started to plant a small amount of milk vetch, 395 mu in area, as part of an effort to transform the low yielding fields. As a result of careful and conscientious cultivation, except for a small number of failures, every mu yielded 2,000 jin or so of grass in general. After it was plowed under, the early rice that was planted in the field grew vigorously in 1964. The per mu average yield of the experimental field reached 497 jin, which was 18 percent more than the average yield of the control field. This experimental result caught the attention of the commune party committee, which adopted planting of green manure in winter as an important measure of increasing the rice and grain yield and of improving the soil, and conscientiously worked for its popularization. In winter of 1964, milk vetch was sowed on 5,440 mu of field, amounting to 25 percent of the total paddy rice field area. The yield of the early rice the following year increased significantly, from 378 jin in 1963 to 479 jin. In the winter of 1965, milk vetch was sowed on 15,680 mu of field, amounting to 74 percent of the area in which early rice of 1966 was planted. The yield of unhusked rice was 526 jin per mu on average, thus changing the traditionally held concept of rice production, e.g., early four and late six [400 jin for early rice, 600 jin for late rice?]. In the winter of 1966, they continued to plant green manure on 13,886 mu of field, and the yield of the early rice in 1967 continued to increase significantly, realizing a per mu average yield of 569 jin and an annual grain yield surpassing 1,000 jin. Many years' practice

sufficiently demonstrated the effectiveness of the milk vetch in increasing production. Therefore, over the past decade at so, they have steadfastly continued the green manure production, which has fast become a self-confident demand of the leader as well as the vast majority of the masses. The area in which milk vetch was planted each winter always exceeded 10,000 mu, which was 50 percent over the total paddy rice field area. This practice guaranteed the paddy rice a relatively sufficient supply of fertilizer, improved the soil, and maintained a steady high yield of rice and grain, leading the entire county in rice production.

In order to further increase the yield of green manure, we have, in 1976, on the foundation of a set of effective cultivation techniques acquired from our past experiences, gone one step further to improve and reform the cultivation techniques of milk vetch, including such measures as sowing period, sowing density and fertilizing. This measure was uniformly implemented over the entire commune, and very good results were obtained. In March 1978, the entire commune including its nine battaliens and 13 production teams carried out an actual measurement of the green manure production. The per mu average yield was 6,477 jin, with one unit yielding more than 8,000 jin; three units, 7,000-8,000 jin; seven units, 6,000-7,000 jin; and six units, 4,000-6,000 jin. Through this reform in cultivation techniques, the yield of milk vetch was raised to a new level. The technical measures taken by us to improve production of milk vetch in recent years include the following three:

(1) Changing from late sow ng to timely early sowing: in the past, milk vetch was sowed during a , eriod of 10 days or so toward the end of the rice period. By that time, the paddy rice has already matured and turned yellow and the soil has often become too dry. As a result, milk vetch was slow to germinate and the success rate was low. It also suffered loss during the harvesting of rice, because its root system had not developed sufficiently. In the winter of 1976, we carried but an investigative observation at the Wenchun Production Team of the Xinhe Battalion. There were two fields. One field was sowed late, only 10 days before the rice harvest. Germination rate was only 50 percent; growth was feeble; the root system was undeveloped; and after the rice harvest, the seedlings turned red and many died. Formation of root tubercles was slew and branching was small in number. The grass could barely cover the field and the yield was only 1,800 jin. The other field was sowed early, 25 days before the rice harvest. Since an adequate amount of moisture was in the soil at the time of sowing, germination was uniform; seedlings were healthy; the root system was well-developed; the growth rate was high; and the yield reached 3,800 jin. A most outstanding result was obtained from "Lianxuan No 2" milk vetch which was sowed on 27 September on 20 mu of early rice field, 22 days before rice harvest. Since germination was uniform and the temperature was relatively mild, the root system developed very well and the growth was very vigorous. By the time rice was harvested, the grass had basically covered the field, and a yield of 8,200 jin of grass was achieved. See table below.

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# Key:

- 1. Appendix
- The effect of sowing period on the yield of milk vetch
- 3. Kind of milk vetch
- Sowing period (days before rice harvest)
- 5. Sowing density (jin/mu)
- 6. Grass height (cm)
- 7. Effective number of seedlings per mu (10,000)
- 8. Grass yield (jin/mu)
- 9. Local brand
- 10. "Lianxuan No 2"

Through practice we have discovered that milk vetch ought to be sowed at least 20 days before the rice harvest time. It should be sowed toward the end of September, 20-25 days before harvest, on the field planted with early maturing late rice, and in early October, 25-30 days before harvest, on the field planted with medium to late maturing rice. Furthermore, the seed crop should also be sowed early, so that it may bloom and bear seed early, so the seeds may be harvested early in order to facilitate the early planting of the early rice.

(2) Changing from sparce sowing to properly dense sowing: The milk vetch seeds used today appear to degenerate. According to past experience, 2-2.5 jin of seeds were sowed on the field to be plowed under, while 1-1.5 jin of seeds were sowed on the field for harvesting of the seed crop. Because of the low density sowing, the number of seedlings was small. If the quality of seeds was inferior and if the soil moisture content was inadequate, the germination rate was low and the grass could not grow vigorously after the rice harvest. In order to increase the green manure production, we have increased the sowing density from 2 to 4 jin in recent years, and the green manure production increased with it. In the winter of 1975, the Wenzhai Production Team sowed milk vetch on a total of more than 130 mu of field, sowing 2-2.5 jin on the greater majority of the field, excepting 10 mu of field on which 4 jin of seeds were sowed. Under the same cultivation conditions, the 10-mu field sowed with 4 jin of seeds was found to have as many as 400,000 seedlings after rice harvest, and the field was practically covered by the grass. Toward the end of the season, there were still as many as 300,000 seedlings with a height of 60-70 centimeters, and a grass yield of 6,000 jin was achieved, while the greater majority of the field sowed with 2-2.5 jin of seeds was found to contain only 120,000-150,000 seedlings toward the end of the season, with a height of only 50 centimeters or so and a grass yield of only 2,000-3,000 jin, a two-fold difference. In the winter of 1976, the greater area of the production team was sowed with 4 jin or more of milk vetch seeds. By the

time it was to be plowed under, the grass yield reached 4,000-5,000 jin. A field 28 mu in area which was used to grow seed crop yielded 53.5 jin of seeds. It is evident that properly increasing the sowing density is one of the effective measures of increasing the yield of milk vetch.

(3) Changing from not applying at all to applying an adequate amount of supplementary nitrogen fertilizer: In the early stage of popularizing the application of milk vetch, we did not pay attention to the application of nitrogen fertilizer to aid the growth of milk vetch itself, thinking that milk vetch has root tubercle bacteria which are capable of fixing the free nitrogen in the atmosphere. In the winter of 1976, we carried out in the Wenzhai Production Team an experiment of applying supplementary nitrogen fertilizer to a large area of field. As soon as the late rice was harvested, ditches were dug in the field and night-soil was poured on. While the field was still wet, urea was applied at the rate of 1.5-2 jin per mu (mixed with 30 jin of phosphorus fertilizer). As a result, the overall green manure production reached 4.000-5,000 jin, while the yield from other fields which did not receive supplementary nitrogen fertilizer remained at 3,000 jin or so. We believe that exchanging a small amount of nitrogen fertilizer with a significant increase in the green manure yield is truly a smart move. A small amount of fertilizer is exchanged with a large amount of fertilizer; an inorganic fertilizer is exchanged with an organic fertilizer.

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GUANGDONG BUMPER PEANUT HARVEST--While reaping a bumper grain harvest, Guangdong also reaped a bumper peanut harvest last year. In addition to that part of the peanut crop distributed to the commune members as rewards for their overfulfillment of production quotas, the total yield still reached 8.17 million dan, surpassing the previous record. [HK200822 Guangzhou Guangdong Provincial Service in Mandarin 2330 GMT 18 Jan 80 HK]

GUANGDONG OIL-BEARING CROPS--Guangdong scored new developments in the production of oil-bearing crops in 1979. Bumper harvests of rapeseeds and spring-sown peanuts were reaped. The yield on the some 700,000 mu of autumn-sown peanuts has once again increased compared with 1978. The total yield of oil-bearing crops for the whole year increased by more than 8 percent compared with 1978, the highest level in the past. By 20 December, the fats and oil procured by the state had increased by more than 20 percent compared with the same period last year. [HK150840 Guangzhou Guangdong Provincial Service in Mandarin 1130 GMT 3 Jan 80 HK]

WINTER FARMLAND IMPROVEMENT—Guangzhou, 25 Jan—Guangdong has mobilized a million people to harness 900,000 mu of low-yield farmland since the winter began. A total of 500,000 mu of farmland has been improved so far. Of the province's 38 million mu of farmland, 15 million mu were low-yield fields with per—mu grain yield below 800 jin. In the fall of 1978, Foshan Prefecture improved 200,000 mu of low-yield fields. In 1979 the prefecture reaped bumper harvests for two successive seasons, with per-mu grain yield increasing from 600 jin in the previous year to more than 800 jin. The prefecture planned to harness another 500,000 mu of low-yield fields. So far it has harnessed 140,000 mu. Shantou Prefecture has harnessed 82,000 mu of low-yield farmland. [OW251209 Beijing XINHUA Domestic Service in Chinese 0204 GMT 25 Jan 80 OW]

FISH POND PRODUCTION--The total production of pond fish last year reached 200,000 tons, an increase of 7 percent compared with 1978. The area of pond fish breeding was also enlarged by over 20,000 mu, and production per unit also greatly increased. [HK171512 Guangzhou Guangdong Provincial Service in Mandarin 2330 GMT 12 Jan 80 HK]

PRIVATE CATTLE RAISING—Since the provincial revolutionary committee issued regulations on several issues in reviving and developing cattle raising in February 1979, private cattle raising in Guangdong has gradually increased. The number of privately-raised cattle is now 69,500. There are great potentials in our province to develop cattle raising since the weather is moderate, rainfall is adequate, there is plenty of pasture and grassland is rich. [HK171512 Guangzhou Guangdong Provincial Service in Mandarin 2330 GMT 4 Jan 80 HK]

AGRICULTURAL MATERIALS SALES—Guangdong's sales of materials for agricultural production greatly increased in 1979. Last year, Guangdong sold a total of some 3.3 million tons of chemical fertilizers, up 16 percent compared with 1978. The sales of nitrogenous fertilizers increased by 25 percent, the highest sales figures in the past. [HK171512 Guangzhou Guangdong Provincial Service in Mandarin 1130 GMT 9 Jan 80 HK]

WINTER FARMLAND CAPITAL CONSTRUCTION—Currently 18,700 winter farmland capital construction projects are in progress throughout Guangdong with 7,900 already completed. A total of 1.12 million mu of low-yielding farmland have been transformed, wile 620,000 mu of land have been built for afforestation. At the same time, a number of fish ponds have been dug. A large number pig sties, stables, manure pools and methane tanks have also been built. However, the leadership in some areas has not paid enough serious attention to farmland capital construction and has failed to firmly grasp it, while in other areas, the low-yielding farmland has not been seriously developed. These areas must make even greater efforts to fulfill the original plans. [HK300235 Guangzhou Guangdong Provincial Service in Mandarin 2330 GMT 26 Jan 80 HK]

TIMBER PRODUCTION--The forestry front in Guangdong overfulfilled timber production for 1979 by 5.8 percent, and overfulfilled the production plans of resin by 8.5 percent. The key forest areas in Guangding are Qujiang and Dapu counties. These counties have set up police stations in the forest areas and have strengthened the legal understanding of the cadres and commune members in the [word indistinct] produce the largest amount of resin in the country. [Guangzhou Guangdong Provincial Service in Mandarin 1130 GMT 21 Jan 80 HK]

ANIMAL HUSBANDRY--According to statistics of the departments concerned in 1979, there were 20.6 million pigs in the countryside throughout Guangdong, with 10 million head procured, surpassing the highest level ever recorded. There were also 450,000 goats in 1979, an increase of 9.5 percent over 1978. There has also been very great development in cattle, rabbits and poultry. [HK200852 Guangzhou Guangdong Provincial Service in Manadrin 1130 GMT 13 Jan 80 HK]

LATE RICE OUTPUT--The harvest of Guangdong's late rice has already been basically completed. According to statistics of the provincial agricultural department, output for the whole province may exceed the same period

in 1978 by 1 billion jin. This year (1979) because Guangdong developed every type of economic crop suitable to local conditions, the area planted to grain was reduced by more than 700,000 mu throughout the province. Furthermore, the weather for late rice production was not favorable. In August several typhoons with a lot of rain brought about flooding in Huidong County and waterlogging along the lower reaches of the Xi Jiang (West River). From late September to late October there were four occurrences of low temperatures which affected the flowering and heading of the late rice areas except for Hainan [Island] and Zhanjiang [Prefecture]. However, because implemention of the rural economic policy aroused the people, they vigorously resisted the disasters and seized good results. The prefectures of Shantou, Zhanjiang, Hainan, Foshan, Zhaoqing and Shaoguan and the suburbs of Guangzhou all had increased output compared with 1978. Zhanjiang Prefecture increased output by 400 million jin and Foshan Prefecture by 350 million jin. Only seven counties in Meixian Prefecture had notable increases in output. Mei and Xingning counties maintained output while the other counties had slight decreases. Dongguan and Heyuan counties in Huiyang Prefecture had minor increases in output but Huiyang and Huidong counties had relatively large decreases because of severe water damage. [Text] [Hong Kong ZHONGGUO XINWEN in Chinese 4 Dec 79 p 2]

GRAIN OUTPUT--The total output of grain throughout Guangxi this year increased by 900 million jin over last year, an increase of 4 percent, surpassing the highest level ever recorded. Some 4 million mu of hybrid rice were planted throughout the region this year. The level of scientific farming has also been enhanced. During spring sowing, the people in this region experienced prolonged low temperatures and rain with insufficient sunlight. The season of spring transplanting was postponed for 10 days. In August and September, most of the prefectures and counties suffered from rainstorms which flooded 1 million mu of grain. After October there was a drought which affected 9 million mu of grain throughout the region. However, by the beginning of autumn [7 August] 82.4 percent of late rice seedlings were transplanted throughout the region. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 26 Dec 79 HK]

FARMLAND IMPROVEMENT—According to statistics on 2 January, the people in Guangxi have transformed 250,000 mu of low-yielding farmland. The low-yielding farmland in the region accounted for one-third of the total farmland. Despite low-yields, this farmland has high production potential.

[HK171456 Nanning Guangxi Regional Service in Mandarin 1130 GMT 10 Jan 80 HK]

SCIENTIFIC FARMING CONFERENCE—The Guangxi Regional People's Government held a regional conference on scientific farming on 8 January in Nanning. Attending the conference were Qin Yingji, Xiao Han, Luo Libing, Ren Gengqing, Guo Cheng, Li Lin and Gan Ku, responsible comrades of the regional CCP Committee and the regional people's government. Comrade Xiao Han delivered an "important" speech at the conference. Regional agriculture committee Vice Chairman (Wei Yinian) announced the Jecision to confer technical titles on 796 scientific and technical cadres. The conference noted: the 1979 grain output in Guangxi increased by 900 million jin as compared with 1978, an increase of 4 percent, thus topping the highest level in histry. It is estimated that the 1979 per capita cash income from collective distribution in this region's rural areas will increase by 8 yuar as compared with 1978. A total of 600 people attended the conference.

[HK171456 Nanning Guangxi Regional Service in Mandarin 1130 GMT 8 Jan 80 HK]

TIMBER PRODUCTION—According to statistics at the end of December 1979, the year's output plans for commercial timber in Guangxi was overfulfilled by 10.5 percent with better quality than in 1978. Since the spring festival in 1979, the region held conferences on timber production to seriously study and publicize the forestry law, help the communes and brigades in the forestry areas solve their practical problems in production and further mobilize the activism of the cadres and masses to develop timber production. Sanjiang Dong Autonomous County is one of the key forest counties in Guangxi. The country overfulfilled the year's output plans on timber in 1979 2 months ahead of schedule. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 21 Jan 80 HK]

XINGAN COUNTY CITRUS BASE--Xingan County in Guangxi has already become a new national mandarin orange and tangerine production base. At present this county has more than 1,500 fruit farms with more than 47,000 mu planted with mandarin orange and tangerine trees. This year the production of these fruits was 11 million jin, an increase of more than 80 percent over 1978. [Excerpt] [Hong Kong ZHONGGUO XINWEN in Chinese 24 Dec 79 p 9]

aGRICULTURAL OUTPUT FIGURES--Agricultural production in Guangxi Province this year achieved an all around bumper harvest. Counties and communes saw increased outputs. The 11 percent increase over 1978 in grain output for the province was the best since liberation. Six prefectures all had increases of more than 250 million jin; the highest increase was more than 400 million jin. Cotton output increased by more than 20 percent, vegetable oil by 57 percent. According to early November statistics of the Guangxi Finance and Trade Department, the annual plan for procured grain in storage was already 90 percent completed. The amount of sesame seed oil and peanut oil procured was 300 percent over that in 1978. [Excerpt] [Hong Kong ZHONGGUO XINWEN in Chinese 11 Dec 79 p 1]

ANIMAL HUSBANDRY -- According to statistics at the end of November, the people in the countryside of Hebei have increased the number of pigs by 31 percent over the corresponding period of last year. The number of pigs has also increased by 19 percent over the corresponding period of last year. The number of pigs sold also increased by 1.43 million head, an increase of 56.3 percent over the corresponding period of last year. The average weight of each pig is 29 jin, 4 liang heavier than last year, the equivalent of raising an additional 1.2 million head of pigs. The number of fresh eggs increased by 45.2 million jin over the corresponding period of last year, an increase of 87 percent. In the fist 11 months of 1979, there were 6.9 million goats in the province, an increase of 600,000 head over last year. There are now 163,000 bee hives in the whole province, an increase of 11 percent over the corresponding of last year. A total of 9.41 jin of honey has been sold, an increase of 29 percent over the corresponding period of last year. [HK150859 Shijiazhuang Hebei Provincial Service in Mandarin 0430 GMT 27 Dec 79 HK]

COCOON PRODUCTION CONFERENCE—The Henan conference on cocoon production was held in Zhengzhou from 13 to 19 January with the participation of 250 persons from 11 prefectures and municipalities. Dai Suli, secretary of the Henan Provincial CCP Committee, attended the closing ceremony, presented prizes and gave a speech. The participants have implemented the spirit of the national conference on cocoon production and studied the important speeches of Vice Premier Wang Zhen and the leading comrades of the central authorities on developing our country's cocoon production. They have also studied the plans and measures for developing our province's cocoon production and cited 100 advanced units. The participants were urged to correct the relations between forestry and cocoon production and between grain and cocoon production, seriously implement document No 74 of the Henan Provincial Revolutionary Committee, implement the economic policies and mobilize their activism in raising silkworms. [Zhengzhou Henan Provincial Service in Mandarin 22 Jan 80 HK]

HENAN IRRIGATION PROJECT-Beijing, 19 Jan-The Songgang irrigation project in Xinhuan County, Henan Province, has in the main been completed and irrigation of wheat fields began this winter. The project, which is the largest in Henan, will bring water to 21,300 hectares of farmland. Construction on the Songgang project was started in 1976. It includes 23 pumping stations, a 27-kilometre-long trunk canal and nine branch canals, totalling 120 kilometres. [Text] [OW201751 Beijing XINHUA in English 1518 GMT 19 Jan 80 OW]

OVERWINTER CROPS--Through the ardous work of the cadres and commune members in the countryside, the growth of seedlings of the overwinter crops in Hubei has improved. At present, first and second grade seedlings accounted for 73.6 percent of the 21.93 million mu of wheat and barley and 70 percent of the 3.56 million mu of rape. Growth of the wheat is best in Xiangfan Municipality and rape is best in Guangji County. In late December 1979, after experiencing rain and snow throughout the province, the people immediately whipped up an upsurge of tending the fields of the over-winter crops. Despite the improvement of crop growth, the growth in most areas is still poorer than at this time last year. Therefore, the departments concerned in Hubei have demanded that these areas further strengthen leadership and adopt effective measures to step up management. [HK270837 Wuhan Hubei Provincial Service in Mandarin 1100 GMT 23 Jan 80 HK]

THREE-LEVEL CADRE CONFERENCE--The Hubei Provincial CCP Committee held a conference of the three-level cadres to discuss and sum up the work in 1979, study and make plans on the tasks in 1980 and discuss how to further promote the national economy in Hubei. The participants revealed that the total output of grain in 1979 reached 36,000 million jin, the highest level ever recorded. The total output of cotton is expected to reach 5.9 million dan, ending the situation of a standstill in the past 20 years. In 1979, the output of agricultural and sideline production enabled each peasant throughout the province to earn an average additional income of 12 yuan while their income from distribution was 100 yuan. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 3 Jan 80 HK]

HUBEI DROUGHT--The central Wuhan meteorological station forecasts that the current drought in Hubei is expected to continue up to March 1980. Therefore, no areas must relax their antidrought work. Since the 24 September rainfall, there has been very little rain throughout the province. In Jingzhou and Xiaogan prefectures, the eastern part of Xiangyang Prefecture and the northern part of Huanggan Prefecture, the rainfall for 80 days was less than 10 millimenters, a 90 percent reduction over the usual amount. According to the Hankou Station, this year has received the least rainfall since such figures were first recorded in 1880. January and February are the deep winter months in Hubei and there will be very little rainfall.

Even if there are increases in rainfall in these 2 months, they will not be enough to change the shortage of water after prolonged drought. Therefore, all areas must continue to firmly grasp antidrought work. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 23 Dec 79 HK]

HUBEI COTTON--According to the Hubei cotton office, the total output of cotton in Hubei this year is 20 percent higher than last year. Of the 54 cotton-producting counties and farms that have 10,000 mu of cotton throughout the province, 48 has reaped bumper harvests. Of these 48 units, 34 reaped an average per mu yield of 100 jin of ginned cotton. [HK010602 Wuhan Hubei Provincial Service in Mandarin 1100 GMT 5 Dec 79 HK]

BUMPER AGRICULTURAL HARVEST--Hubei Province this year reaped a comprehensive bumper agricultural harvest. The masses of rural cadres and commune members have enthusiastically sold grain and edible oil to the state. By the end of 10 December, the grain purchased in this province increased by over 700 million jin as compared with last year, with edible oil purchased in this province increasing by 120,000 dan as compared with the same period last year. [HK011410 Wuhan Hubei Provincial Service in Mandarin 1100 GMT 14 Dec 79 HK]

AGRICULTURE LOANS--In 1979, the agriculture banks in Hubei provided 1,020 million yuan of agricultural loans, an increase of 10 percent over last year. This year, the support-agriculture cadres at all levels in Hubei have strengthened investigation and analysis on the use of funds. Spring drought was more serious in Jingzhou Prefecture. The branch of the agriculture bank in this prefecture provided 62 million yuan of loans to the prefecture, effectively supporting drought resistance and enabling the people to reap a bumper summer grain harvest. By the end of November, savings in the countryside increased by 46 percent over the corresponding period of last year. The rate of recovery for agricultural loans in Hubei has increased from 61 percent last year to 88 percent this year. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 25 Dec 79 HK]

FARMLAND CONSTRUCTION--By 20 December, 3.77 million laborers have been mobilized in Hubei to work on 24,100 winter farmland capital construction sites. Of these, 1.1 million laborers will work on key water conservancy projects. In late November, the party committees of Xiangyang, Yunyang and Yichang prefectures held telephone conferences on making arrangement for the labor force in farmland capital construction. They pointed out that the coming 2 months are the most opportune moments for winter farmland capital construction. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 25 Dec 79 HK]

RURAL ENTERPRISES--In 1979, the total value of output of Hubei's commune and brigade enterprises increased by 13.9 percent compared with 1978. Profits increased by 12 percent, labor productivity increased by 15 percent, quality of products notably improved, and varieties of products also

increased. At the beginning of last year, when implementing the principle of readjustment, restructuring, rectification and improvement, production of some commune and brigade enterprises decreased. The situation was improved after investigations. The total value of output of provincial commune and brigade enterprises in the second half of the year increased by 46 percent compared with the first half of the year. The suburbs of Xiangfan Municipality established hotels and shops. A hotel built on one brigade yielded an annual income of 50,000 yuan, a profit of 11,000 yuan. Prefectures, municipalities and counties have established sales rooms for rural enterprise products so as to enliven commune and brigade economy. [HK200822 Wuhan Hubei Provincial Service in Mandarin 1100 GMT 16 Jan 80 HK]

YOUTH AFFORESTATION RALLY--On 22 January, representatives of the young people who took part in the Hubei young people's afforestation rally and the young people from Xianning Prefecture as well as the PLA commanders and fighters stationed in Xianning set out to plant trees in the hot spring areas. Wang Hanzhang, vice provincial governor, and others also took part in the afforestation. Xianning Prefecture is one of the advanced units throughout the country in doing a good job of afforestation. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 24 Jan 80 HK]

COTTON PROCUREMENT--Hubei has overfulfilled the 1979 cotton procurement plan. By 15 January, Hubei had procured 8.538 million dan of ginned cotton, up 1.625 million dan compared with the same period of the previous year. Because of the increase in cotton yield and also the increase in cotton procurement price, Hubei's cotton growing areas earned some 400 million yuan more compared with 1978, and each cotton peasant earned 14 yuan more on average compared with 1978. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 19 Jan 80 HK]

HUNAN COTTON--The areas sown to cotton in Hunan this year amount to 2.3 million mu, with 2.43 million mu already having been reaped. The total output of ginned cotton is 1.82 million dan. The areas sown to cotton are 300,000 mu less than last year, but the total output has increased by 310,000 dan, an increase of 20 percent. The average per mu yield of ginned cotton is 75 jin, the highest ever recorded in Hunan. The total output of cotton from 1 million mu in Changde Prefecture is 950,000 dan, an increase of 30 percent over last year. [Changsha Hunan Provincial Service in Mandarin 1100 GMT 13 Dec 79 HK]

STATE FARM MANAGEMENT CONFERENCE -- Hunan Province recently held a conference on state farm management, conveying the spirit of the national conference on state farm management and exchanging experiences. The conference noted: Since this year, the production situation on this province's agricultural reclamation front has been good. Total grain output has reached over 510 million jin, and increase of 10.9 percent as compared with last year. Total cotton output has reached 210,000 dan, an increase of 23.6 percent as compared with last year. Total rape output has reached over 92,000 dan, an increase of 50 percent as compared with last year. It is estimated that this year's total industrial and agricultural output value may reach over 277 million yuan, an increase of 23.5 percent as compared with last year. It is estimated that this year's total profits may reach over 17 million yuan, a 7.6-fold increase as compared with last year. However, the levels of production and agricultural mechanization in our state farms are still very low and cannot meet the needs of agricultural modernization. Therefore, we must continue to firmly and successfully grasp the management of state farms, fully tap productive potentials, reduce production costs, increase production and make profits. [HK091330 Changsha Hunan Provincial Service in Mandarin 1100 GMT 19 Dec 79 HK]

GRAIN PROCUREMENT--Procurement of grain in Hunan in 1979 has been overful-filled. The quantity in the stores increased by 4 percent over the corresponding period of last year. The total output of grain in 1979 has surpassed the highest level ever recorded. By 25 December, the quantity of grain in the store surpassed the plans by 1.2 percent. [HK150732 Changsha Hunan Provincial Service in Mandarin 1100 GMT 31 Dec 79 HK]

WINTER FARMLAND CAPITAL CONSTRUCTION—At present, 7 million laborers in Hunan are working on water conservancy projects. Some 103,000 sites are under construction with 41,000 already completed. In launching winter farmland capital construction this year, the people are more concerned about practical effects. The principal responsible comrades of the party and government have grasped the backbone projects. The people are striving to complete these projects before the spring festival. [HK171348 Changsha Hunan Provincial Service in Mandarin 2315 GMT 11 Jan 80 HK]

HUNAN SUGAR—During the current sugar refining season in Hunan, it is expected that more than 500,000 tons of sugarcane will be refined. In the 23 sugar refineries, every 100 jin of cane is expected to yield 8 jin of sugar. Sugar produced by machine is expected to reach 30,037 tons, 50 percent more than originally planned. Yearly sales of sugar in Hunan are 100,000 tons, most of which comes from other provinces. In 1979, 230,000 mu were sown to sugarcane throughout the province. [Changsha Hunan Provincial Service in Mandarin 2515 GMT 19 Jan 80 HK]

HUNAN GRAIN OUTPUT--Dayong County, Hunan, reaped a total of 290 million jin of grain in 1979, or nearly 15 percent higher than 1978. [Beijing Domestic Service in Mandarin 0400 GMT 24 Jan 80 OW]

JIANGSU 1979 AGRICULTURAL OUTPUT--According to statistics the increase in grain output for 1979 for Jiangsu Province was 2.5 billion jin. Cotton increased more than 800,000 dan and oil-bearing crops more than 1 million jin. By the end of the year (1979) it is estimated that there will be about 2 million more hogs in pens. Comparing this with 1978, the increases for the above are 5.5, 8.7, 16.5 and 10.1 percent respectively. [Excerpt] [Hong Kong ZHONGGUO XINWEN in Chinese 14 Dec 79 p 1]

WHEAT FIELD MANAGEMENT--Over the past few days, 120,000 persons of Jiangsu's Tongshan County have been mobilized to apply fertilizer to some 270,000 mu of wheat, barley and naked barley. Some 1.3 million mu of farmland in this county are sown to wheat, barley and naked barley. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 20 Jan 80 OW]

COUNTY PRODUCTION--Wuxi County's 1979 grain output topped 1978 by 39 million jin while output value of its sideline and industry production increased by 100 and 22 percent respectively. Per capita income of its commune members was 137 yuan. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 21 Jan 80 OW]

AFFORESTATION DRIVE--Suqian County plans to mobilize youngsters to plant 1.5 million trees, afforest 5,000 mu of land and grow seedlings on 5,000 mu of field during this winter and the coming spring season. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 21 Jan 80 OW]

AGRICULTURAL MEETING--The Jiangsu Provincial CCP Committee and the provincial people's government held a joint telephone meeting on 6 January on water conservancy and farmland capital construction. (Xiong Xiyun), director of the provincial water conservancy bureau, spoke at the meeting reviewing the current development of water conservancy and farmland capital construction in the province and discussing future tasks. Zhou Ze, secretary of the provincial CCP Committee and vice governor of Jiangsu, also spoke at the meeting, urging the rural areas of the province to whip up an upsurge in water conservancy and farmland capital construction in winter and strive to fulfill more than 70 percent of the earth and stone work of various projects before the spring festival. [OW101349 Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 7 Jan 80 OW]

PEASANTS INCREASE INCOME--Since the grain procurement price was raised, the income of peasants in Jiangsu has risen 500 million yuan, averaging 16.6 yuan per person. In Xinghua County, which provided 700 million jin of marketable grain to the state last year, each peasant received an additional 39.7 yuan on the average, the largest per capita increase among all counties. [OW090157 Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 7 Jan 80 OW]

INDUSTRIAL CROPS--Nanchang, 10 Jan--The Jiangxi Provincial CCP Committee has decided to grow more industrial crops in 1980. The planned industrial crops area will account for 9 percent of Jiangxi's total arable land. It accounted for 7 percent in 1979. The provincial party committee has designated northern Jiangxi region as a cotton-producing base, southern Jiangxi region as a sugarcane-producing base, Jishui and Yujiang counties as jute-producing centers, Wuyuan and Xiushui counties as tea-producing centers, and Nanfeng, Xunvu, Xingan and Xinfeng counties as orange-producing areas. The provincial party committee has also decided to help communes and production brigades run factories to conduct preliminary processing of industrial crops. Jiangsi Province grows about 2 million mu of cotton.

[OW 151107 Beijing XINHUA Domestic Service in Chinese 0146 GMT 10 Jan 80 OW]

AGRICULTURAL CADRES TRAINING -- The first batch of 76 agricultural management leading cadres in Jiangxi have attended technology training for 3 months. Stress of their study is on basic theory, and the syllabus is agricultural economic management. After studying for 3 months, the students have grasped the preliminary management of agriculture, plant growth, soil and manure, agricultural meteorology, crop cultivation, plant protection, orchard cultivation, animal husbandry and veterinary medicine. They have read a total of 1.2 million words. Each of them has also written several tens of thousands of words. Some 65.3 percent of the students have scored outstanding achievement in their study. On 13 January, the training course held a graduation ceremony with the participation of Wang Zhaorong, standing committee member of the Jiangxi Provincial CCP Committee and deputy provincial governor, who also gave a speech. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 18 Jan 80 HK] The first course for training agricultural administrative cadres in Jiangxi recently graduated in Zhangshu Agricultural College. A total of 76 cadres graduated from the course after 3 months. At the graduation ceremony, Wang Zhaorong, standing committee member of the Jiangxi Provincial CCP Committee and deputy provincial governor; (Sun De), director of the Jiangxi agricultural office; and some graduates gave speeches. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 15 Jan 80 HK]

TEA-SEFD OIL--In 1979, the total output of tea-seed oil in Jiangxi reached 66 million jin, a new record and an increase of 350 percent of 1978. There are 15 million mu of tea-seed oil in the province. The conditions for developing tea-seed oil are very good. The prospects are favorable. Yichun County is the key tea-seed oil producing area in the province, with 720,000 mu of tea-seed oil on mountains. In 1979, the total output of tea-seed oil in the county was 7.52 million jin, an increase of 52 percent over 1978. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 14 Jan 80 HK]

FORESTRY FORUM--A new style of regarding it as glorious to protect the forests and shameful to destroy them is forming in Jiangxi. The various prefectures, counties, communes and brigades have revived, readjusted and put on a sound basis the organizations for protecting the forests and fire prevention. At present, there are 6,800 full-time forest protection personnel throughout Jiangxi, with 29,470 spare-time personnel. There are also 2,350 kilometers of highway throughout the forest areas in the province. Recently the Jiangxi general command of forest protection and fire prevention held a forum to report their work and exchange experiences in protecting forests and preventing fire. Liu Junxiu, secretary of the Jiangxi Provincial CCP Committee and general commander of forest protection and fire prevention, attended the forum and gave an important speech, urging the forest front to work hard and struggle for protecting and developing the forest resources in our province. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 18 Jan 80 HK]

JILIN

# BRIEFS

HOG PROCUREMENT--Jilin Province set an all-time record in procuring live hogs in 1979. By the end of 1979, it had procured 1.42 million head of live hogs, 70,000 head more than in 1978. [SK210800 Changchun Jilin Provincial Service in Mandarin 2200 GMT 18 Jan 80 SK]

NEI MONGGOL

#### BRIEFS

NEI MONGGOL GOAT BREEDING--Hohhot, 26 Jan--Good strains of Albas goats whose fine wool is used for the production of cashmere are to be selected and developed in a special breeding centre in Inner Mongolia. The government of the autonomous region has decided that Albas commune in the Otog Banner will be the breeding centre for stud goats to be sent to other places. A group to carry on scientific research has been set up there. Albas white goats have a soft lustrous white wool. Hair length averages 21.7 centimetres while the under-growth is about 5.65 centimetres thick. Each goat produces about 400 grams of wool annually. Albas and three neighbouring communes now have 30,000 goats. Beijing Municipality and Hebei and Shaanxi provinces are also beginning to raise Albas goats. [Text] [OW270258 Beijing KINHUA in English 0710 GMT 26 Jan 80 OW]

WINTER FARMING--Rural areas across Qinghai Province are busily preparing for spring farming with encouraging results. At present, Ledu, Minhe, Huzhu, Datong, Hualong, Huangyuan and Menyuan counties have accumulated enough farm compost to meet 75 percent of their fertilizer needs for the coming spring farming season. The various localities have also prepared some 25 million jin of fine-strain drought-resistant seeds. [Xining Qinghai Provincial Service in Mandarin 1100 GMT 19 Jan 80 OW]

OIL-BEARING CROP--Last year, Huzhu County, Qinghai, harvested 7.7 million jin of oil-bearing seeds. By 5 January it had delivered 3.31 million jin of oil-bearing seeds to the state. [Xining Qinghai Provincial Service in Mandarin 1100 GM: 19 Jan 80 OW]

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AGRICULTURE CIRCULAR--The Shanxi agricultural committee recently issued a circular which demanded that those on the agricultural front urgently get mobilized to resist drought and prevent damage from cold weather. The circular pointed out that it is necessary to rapidly send the cadres to the basic level to do a good job of resisting drought and protecting wheat, establish and put on a sound basis the drought resisting organs and effectively solve the practical problems in the course of resisting drought. It is also necessary to grasp the opprotune moment to conduct winter irrigation and preparations for spring irrigation. Areas in the south must make full use of the existing water conservancy facilities and continuously irrigate the wheat fields day and night in shifts, to insure the normal growth of wheat. Areas in the northeast should try to irrigate more fields that have not been plowed under after the harvest. [Taiyuan Shanxi Provincial Service in Mandarin 2300 GMT 14 Jan 80 HK]

FARM MACHINERY CONFERENCE--The Shanxi agricultural machinery bureau held a conference of agricultural machinery system in Taiyuan from 2 to 11 December. The participants seriously reviewed and summed up the history and experiences of our province in agricultural mechanization, studied and made plans on the tasks of the last 2 years in the 3 years of readjustment and fully discussed the main problems that exist in our province's agricultural machinery system. During the conference, Wang Tingdong and Zhao Lizhi, responsible comrades of the Shanxi Provincial CCP and revolutionary committees; and (Fan Liguan), vice chairman fo the Shanxi agriculture committee, gave speeches. They discussed the excellent situation of agricultural mechanization in the province. The conference also cited 20 Red Banner units, 97 advanced units, 29 advanced collectives and 54 advanced individuals. [HK150859 Taiyuan Shanxi Provincial Service in Mandarin 2300 GMT 17 Dec 79 HK]

AFFORESTATION MU- Remarkable success was achieved last year in afforesting mountainous areas in western Shanxi Province. Last year people in western Shan-xi afforested 1.1 million mu of land or over 9 percent over the yearly plan, and nurtured 135,500 mu of saplings. According to plan, 10 million mu of land will be afforested by 1985 or one-eighth of northern China's afforestation plan. [OW211515 Beijing XINHUA Domestic Service in Chinese 0310 GMT 18 Jan 80 OW]

AGRICULTURAL OUTPUT--This year (1979) Shandong agriculture achieved a bumper harvest. According to statistics, total grain output for the province increased 1.1 billion jin over 1978, cotton increased 120,000 dan, peanuts increased 2 million dan and dried and fresh fruit increased 300 million jin. Pigs, sheep, chicken and rabbits had a rather large increase in production. As of 10 December the province already had more than 6.75 billion jin of grain in storage. This exceeded the annual procurement task by more than 1.05 billion jin. [Excerpt] [Hong Kong ZHONGGUO XINWEN in Chinese 24 Dec 79 p 1]

PEANUT OUTPUT, ACREAGE--Shandong Province had a bumper harvest this year (1979). According to statistics the province planted 8.46 million mu of peanuts which produced a total output of 1.9 billion jin. This was an increase of more than 10 percent over 1978. The present procurement and market situations indicate that the increase may be larger. At present the provincial procurement task has been completed and the peasants are still offering to sell peanuts to the grain stations. At a great many city markets and rural trade markets for agricultural by-products, peasants are offering large quantities of raw and cooked peanuts for sale. The selling price is about the same as the proposed purchase price by the state. [Text] [Hong Kong ZHONGGUO XINWEN in Chinese 21 Dec 79 p 1]

SHANDONG COUNTY GRAIN OUTPUT-Jinan, 15 Jan-Laixi County, Shandong, turned in to the state more than 195 million jin of grains in 1979. This represents an increase of 54.54 million jin over the figure of 1978. Per capita grain ration reached 505 jin. [Beijing XINHUA Domestic Service in Chinese 0705 GMT 15 Jan 80 OW]

GRAIN PURCHASING COMPANY—Chengdu, 15 Jan—The Sichuan provincial company for the purchase and sale of grain at negotiated prices was recently set up in Changdu, Sichuan. This is a new attempt by the provincial grain department to redistribute grain in the province through market regulation. According to the statistics of the department concerned, some 2 billion jin of grain has been put on sale at markets at negotiated prices every year in the past 2 years after the state grain purchase task has been fulfilled. This has played an important role in satisfying the needs of urban people and protecting the profits of peasants. Timely purchase and sale of grain could not be conducted on a relatively large scale as trade at country fairs is limited. With the setting up of this company, redistribution of grain in the province can be conducted on larger scale and trade with other provinces will also be promoted. [OW171423 Beijing XINHUA Domestic Service in Chinese O702 GMT 15 Jan 80 OW]

SICHUAN PIGS--Commercial departments in Sichuan procured 18,130,000 pigs in 1979, an increase of about 4 million over the 1978 figure. The average weight was 153.8 min, an increase of 5.7 jin. Pork supplies for the cities greatly improved during this year. [Chengdu Sichuan Provincial Service in Mandarin 2310 GMT 18 Jan 80 HK]

YOUTH AFFORESTATION CONGRESS -- A Sichuan congress of progressive collectives and individuals of young people in afforestation and protection of forests, jointly held by the Sichuan CYL Committee and the Sichuan Forestry Bureau. opened in Chengdu on the afternoon of 19 January. Present were Yang Wanxuan, secretary of the Sichuan Provincial CCP Committee; Yang Rudai, standing committee member of the Sichuan Provincial CCP Committee and deputy provincial governor; Zhang Lixing, standing committee member of the Sichuan Provincial CCP Committee; and other responsible comrades of the departments concerned. (Luo-Meng-Jia-Jia), deputy secretary of the provincial CYL Committee, delivered the opening speech. He pointed out that the tasks of the congress were to sum up and exchange the experiences of the young people and juveniles in our province in afforestation and protection of forests, cite and reward the progressives, and mobilize the young people and juveniles throughout the province to be the reinforcement in afforestation and protection of forests. Yang Rudai also gave a speech. [HK270826 Chengdu Sichuan Provincial Service in Mandarin 2310 GMT 19 Jan 80 HK]

1979 GRAIN OUTPUT--This year Sichuan experienced several kinds of severe natural disasters. Yet grain production for the whole province created a new record for more than 62 billion jin, an increase of 1.2 billion jin over 1978 or an increase of 12.7 billion jin over 1976. Economic crops also took a big step forward. Compared to 1976, this year cotton increased 30 percent, oil-bearing crops up 79 percent, sugarcane increased 94 percent, silkworm cocoons rose 75 percent and live hogs in pens up 26 percent. Except for cotton, each item set historical highs. At the same time, forestry, animal husbandry, sideline production and fisheries also began to display a vitality. The gross value of output for the commune and brigade-run enterprises increased 350 percent. [Text] [Hong Kong ZHONGGUO XINWEN in Chinese 21 Dec 79 p 1]

CITRUS PRODUCTION--Wanxian, Wenjiang and Nanchong prefectures in Sichuan have one after another spread the good news of a bumper mandarin orange and tangerine harvest. This year Wanxian Prefecture's total output of mandarin oranges and tangerines reached more than 61 million jin, a net increase of more than 14 million jin over 1978. This put the prefecture in first place in the province. Wan County's output of "Tahongpao" tangerine reached more than 16 million jin, exceeding 1978's total output of all tangerines.

[Excerpt] [Hong Kong ZHONGGUO XINWEN in Chinese 10 Dec 79 p 13]

GRAIN OUTPUT--The masses in Yining County, Xinjiang, promoted production of grain and other crops in 1979. The total output of grain was 247 million jin, increasing by 11.1 percent over the previous year. The total output of oil-bearing crops increased by 36.2 percent over 1978. Both grain and oil-bearing crops set all-time records in production. [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 16 Jan 80 OW]

XIZANG AGRONOMY SOCIETY--Lhasa, 22 Jan--A society of agronomy for Xizang Autonomous Region has been established here. The society will give advice on crop cultivation, horticulture, soil study and fertilizers, plant protection and veterinary problems. [Text] [OW231215 Beijing XINHUA in English 0719 GMT 22 Jan 80 OW]

GRASSLAND PROTECTION—The Xizang Autonomous region recently held a meeting in Lhasa to study the issue of livestock fodder supplies following the development of animal husbandry in Xizang. Attended by leading members and technicians of departments concerned of various prefectures and municipalities, the meeting decided to launch a campaign to eradicate rodents, insect perts and poisonous weeds in the grasslands, step up artificial production of forage grass and build plots to grow forage grass seeds in an effort to gradually and fundamentally solve the problem of a shortage of forage grass in Xizang. The meeting maintained that the serious damage done to Xizang's grasslands is the result of over-grazing--affecting more than 100 million mu of grassland--reckless reclamation of cropland on grassland, rodents, insect pests and poisonous weeds. [Lhasa Xizang Regional Service in Mandarin 1100 GMT 27 Jan 80 OW]

WEATHER FORECAST -- According to the forecast of the Yunnan meteorological station, the total precipitation in the greater part of the province this year has been less than that in a normal year and the temperatures have been lower than that in 1979. In particular, the temperatures from January to April this year will be low. At the beginning of March, a comparatively strong cold wave will appear. The provincial meteorological station has put forward the following suggestions: 1) It is necessary to protect seedlings and spring-harvested crops; (2) It is essential to select and use earlymaturing and cold-resistant superior paddy seeds, nurse health seedlings and crash-reap and crash-transplant in a timely manner; 3) South Yunnan will have spring drought from January to April and it is necessary to do a good job of combating drought; 4) It will rain less in May and June and all places must use water in a planned and thrifty way; 5) It is imperative to store water to irrigate seedlings; 6) All places must do a good job in storing water; 7) All places must do a good job in applying manure and 8) The province must basically enhance its ability to combat drought and floods and must carry out afforestation. [HK171315 Kunming Yunnan Provincial Service in Mandarin 1100 GMT 7 Jan 80 HK]

KUNMING RURAL ECONOMY--The Kunming Municipal CCP Committee has organized 110 cadres into 13 investigation groups to go deep into the rural areas to find out the situation of the implementation of the economy policy and the ways to enliven the rural economy and investigate measures to reaping all-round bumper harvest of agriculture, forestry, animal husbandry, sideline production and fishery, so that the countryside can provide more and better nonstaple foodstuffs to the city. The 110 cadres were transferred from the municipal agriculture office, the investigation and study office of the municipal CCP Committee, and the counties and districts. The 13 investigation groups were led by the numbers 1 and 2 persons of the counties and districts. Li Yuan, first secretary of the Kunming Municipal CCP Committee; and (Zhu Zeqing), standing committee member of the municipal CCP; committee and vice chairman of the municipal revolutionary committee, personally took part in the investigation in the countryside. [HK200901 Kunming Yunnan Provincial Service in Mandarin 1100 GMT 16 Jan 80 HK]

AGRICULTURE FORUM -- The Yunnan Provincial CCP Committee recently invited experts, professors and science and technology workers in agriculture, forestry, water conservancy, meteorology, zoology and botany to a forum to discuss the issue of how to speed up agricultural production in Yunnan. A total of 50 persons took part in the forum. Also present at the forum were Gao Zhiguo, Xue Tao, and Ma Wendong, responsible comrades of the Yunnan Provincial CCP Committee and people's government. The participants to the forum pointed out that the agricultural resources in Yunnan are rich and the potentials for increasing production are very great. However, natural disasters also occur very frequently. Coupled with the relatively weak economic foundation in the province, and the low level in scientific farming, agricultural production thus becomes complicated. Therefore, it is necessary to make use of nature in accordance with the local conditions, make rational arrangements and readjust the internal structure of agriculture, so as to bring about full development in agriculture, forestry, animal husbandry, sideline production and fishery. It is also necessary to seriously do a good job of agricultural zoning. The participants said: 60 percent of the farmland in the province can be used for developing afforestation, while 20 percent of the land can be used for animal husbandry and 10 percent for agriculture. [Kunming Yunnan Provincial Service in Mandarin 1100 GMT 21 Jan 80 HK]

COUNTY PIG BREEDING--Tongxiang County of Zhejiang Province has promoted pig breeding by running well its 3,169 collective livestock farms, with sows kept in sties reaching 35,839 head and pigs kept in sties reaching 163,018 head, surpassing the all-time high. [Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 18 Jan 80 OW]

COUNTY AGRICULTURAL PRODUCTION—Haiyan County of Zhejiang Province reaped a bumper harvest in agriculture in 1979. Output of grain, oil-bearing crops, silkworm cocoons and hogs all surpassed the all-time high records. The per-mu grain output reached the target set by the national program for agricultural development. The per-mu yield of rapeseeds reached 239 jin and the total output of silkworm cocoons exceeded 44,000 dan, increasing by 8,000 dan over 1978. The number of hogs raised increased by 28 percent over 1978. The per-capita income for rural population reached 201 yuan, topping 1978 figure by 25 yuan. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 16 Jan 80 OW]

COUNTY GRAIN OUTPUT--Jiashan County, Zhejiang, reaped a good grain harvest in 1979. The county's total grain output in 1979 increased by more than 60 million jin over that in 1978. As of 15 January this year, the county has overfulfilled state grain procurement tasks by 10 million jin. [Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 22 Jan 80 OW]

GRAIN OUTPUT--In 1979, the total grain output of Wuxing County in Zhejiang Province reached 1.18 billion jin, increasing by more than 130 million jin over 1978. The per-mu output reached 1,660 jin, hitting an all-time high. The average income for commune members reached 200 yuan. [Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 17 Jan 80 OW]

LIVESTOCK PRODUCTS EXPORT-Hangzhou, 24 Jan-Zhejiang Province exported 50 million U.S. dollars worth of livestock products last year, an increase of 72 percent over 1978. The volume of lake sheep, goat, yellow weasel and mink hides exported last year rose by a large margin over previous years. [Beijing XINHUA Domestic Service in Chinese 0721 GMT 24 Jan 80 OW]

COMMUNE-RUN ENTERPRISES--The Zhejiang provincial bureau in charge of enterprises run by communes and production brigades announced rapid progress made by these enterprises. The total production value of all such enterprises in the province during 1979 reached 3 billion yuan, marking an increase of 15 percent as compared with that in 1978. There are six enterprises in the province whose total output value exceeds 100 million yuan. [OWO81413 Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 2 Jan 80 OW]

FARMLAND CONSTRUCTION--As of 11 January, people in Zhejiang Province's rural areas had completed 290 small hydroelectric power stations, and 17,800 winter farmland capital construction projects, adding 168,000 mu of cropland and 22.6 million cubic meters of water storage capacity. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 27 Jan 80 0W]

JINHUA PREFECTURE AGRICULTURAL PRODUCTION--This year (1979) in Jinhua Prefecture in Zhejiang Province, despite strong tornadoes in the spring and summer and a drought since fall the likes of which has rarely been seen in more than 30 years, agricultural production still has achieved an all around bumper harvest. This year the total grain output was more than 4.9 billion jin, an increase of 7.3 percent over 1978. Cotton, oil-bearing crops, tea leaves, sugar beets and fruit have had a rather large increase. Of these, the total output of mandarin oranges and tangerines reached 200,000 dan, more than double that of 1978. [Text] [Hong Kong ZHONGGUO XINWEN in Chinese 5 Dec 79 p 1]

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#### BRIEFS

BOOK ON HOG RAISING—Taiyuan, 25 Jan—"Hog Raising," by Professor Zhang Longzhi, a well-known expert in swine production, will soon be published by the Chinese agricultural publishing house. The 350,000-word book deals with the experience of Chinese peasants in raising hogs as well as the latest developments and achievements at home and abroad. Hog raising specialists recommend that it be used as a textbook in agricultural institutes. Seventy-year-old Professor Zhang Longzhi is vice-president of the Shanxi Provincial Agricultural University. Besides teaching he has done extensive research in crossbreeding, diet and the rearing of pigs. One of his most successful experiments was crossbreeding the big ear black pig of Shanxi Province with a variety from Sichuan Province. He succeeded in producing a hog providing 7.5 to 15 more kilograms of meat while saving 25 to 50 kilograms of fodder compared with ordinary pigs under the same conditions. [Textw [0W250939 Beijing XINHUA in English 0222 GMT 25 Jan 80 0W]

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